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Performance and microbial communities in a combined bioelectrochemical and sulfur autotrophic denitrification system at low temperature

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## Highlights

1. The CBSAD system obtained excellent denitrification efficiency 96.55% at  $10\pm 2^{\circ}\text{C}$ .
2. This system owned the most abundant and rich communities at current 200 mA.
3. Phyla *Firmicutes* and *Proteobacteria* dominated in all the communities.
4. The largest genus was *Pseudomonas* at current 200 mA condition in this CBSAD system.
5. High current might change the bacterial structure in this CBSAD reactor.

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